Claims:

1. An electro-chemical deposition system, comprising:

a) a mainframe having a mainframe wafer transfer robot;

b) a loading station disposed in connection with the mainframe;

c) one or more processing cells disposed in connection with the mainframe;

d) an electrolyte supply fluidly connected to the one or more electrical processing cells;

e) a spin-rinse-dry (SRD) chamber disposed between the loading station and the mainframe; and

f) a thermal anneal chamber disposed adjacent the loading station.

2. The system of claim 1 wherein the thermal anneal chamber comprises a rapid thermal anneal chamber having a heater plate.

3. The system of claim 2 wherein the heater plate comprises an atmospheric pressure heater plate.

4. The system of claim 1, further comprising:

e) a system controller adapted to control operations of one or more components of the electro-chemical deposition system.

5. The system of claim 4, wherein the thermal anneal chamber further comprises a gas inlet adapted to introduce one or more gases into the thermal anneal chamber.

6. The system of claim 5 wherein the system controller controls the gas inlet to the chamber to provide a chamber environment having an oxygen content of less than 100 parts per million.

7. The system of claim 6 wherein the gas inlet is connected to a nitrogen gas source to introduce nitrogen into the chamber.

8. The system of claim 6 wherein the gas inlet is connected to a nitrogen gas source and a hydrogen gas source to introduce nitrogen and hydrogen into the chamber, wherein the hydrogen content is maintained at less than about 4%.

9. The system of claim 1 wherein the loading station comprises:

i) one or more wafer cassette receiving areas;

ii) one or more loading station wafer transfer robots for transferring a wafer between the loading station and the SRD station and between the loading station and the thermal anneal chamber; and

iii) a wafer orientor.